

# Summer Internships in Science and Technology



## 2011 Application

# Application Instructions



Note: This PDF file will allow you to make changes and save the PDF file locally on your computer. Before completing the entire application test that you can add some information, save the PDF file, close it and reopen it with your changes intact. *If you are unable to save this PDF file and form data you will need to upgrade your version of Adobe Acrobat Reader to version 8 or newer (this is a free download from [www.adobe.com](http://www.adobe.com))*

1. Complete the application. For the essay questions it is recommended to compose your responses in a word processor so you can check spelling, grammar, etc. and paste the final text into the space provided in this application.
2. Click the [Submit Application] button on the last page.
3. A confirmation e-mail will be sent to you. The confirmation e-mail will provide instructions for checking the status of your application.
4. Arrange to have your **official transcript** sent to Fermilab/SIST.
5. Arrange for **two letters of recommendation** to be sent to Fermilab/SIST.

**Application Deadline is  
5 PM Friday 18 February 2011**

**Your application is not complete until Fermilab/SIST has received this form, your official transcript and two letters of recommendation.**

**For more information about the SIST program go to:  
<http://sist.fnal.gov>**



## Personal Information

Last Name		First Name		Middle Name
Suffix	E-mail Address			
<b>Gender</b> <input type="checkbox"/> Male <input type="checkbox"/> Female	<b>Are you a returning SIST intern?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No	<b>Will you be at least 18 years old by May 2011?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No	<b>Citizenship</b> <input type="checkbox"/> U.S. citizen <input type="checkbox"/> Permanent resident <input type="checkbox"/> Foreign national with I-20	
<b>Ethnicity*</b> <input type="checkbox"/> Black <input type="checkbox"/> Asian <input type="checkbox"/> Hispanic (White) <input type="checkbox"/> Native American / Alaskan <input type="checkbox"/> White <input type="checkbox"/> Pacific Islander <input type="checkbox"/> Hispanic (all other races) <input type="checkbox"/> choose not to answer				
* this information is voluntary. This laboratory solicits this information because as a federal contractor Fermilab is required to have an affirmative action plan that addresses outreach and equity in employment.				

## Campus Address

Street			
Street/Apt			
City		State	ZIP
Phone			

## Home Address

Street		
Street/Apt		
City	State	ZIP/Postal Code
Phone	Country	

## College / University

Name of College or University			
<b>First Major</b> <input type="checkbox"/> Electrical Engineering <input type="checkbox"/> Electrical/Computer Engineering <input type="checkbox"/> Mechanical Engineering <input type="checkbox"/> Computer Science <input type="checkbox"/> Physics		<b>First Minor</b>	
<b>Second Major</b>		<b>Second Minor</b>	
<b>Class hours by March 2011</b> <input type="checkbox"/> Semester <input type="checkbox"/> Quarter		<b>Class hours by May 2011</b> <input type="checkbox"/> Semester <input type="checkbox"/> Quarter	
Cumulative GPA	GPA in technical courses	GPA Scale	

## Work Experience

Employer

Position

Dates of Employment

Description of Work

Employer

Position

Dates of Employment

Description of Work

## Skills Matrix

Rate your experience or comfort level in the following areas:

None ← → Expert

Assembly language	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C++	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Python	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Perl	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PHP	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Java / Javascript	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HTML	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Databases / SQL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Windows OS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Linux / Unix OS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mac OS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Real-time OS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shell scripts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GUI design	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Webservers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Network programming	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Labview	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Digital multimeter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Oscilloscope	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

None ← → Expert

Logic analyzer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spectrum analyzer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Digital circuit design	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analog circuit design	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Firmware development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Microcontrollers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Soldering	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Printed circuit boards	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Electrical schematics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hand tools	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Power tools	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2D CAD / drawing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3D CAD / modeling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Optical systems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pneumatic vacuum systems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cryogenics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Robotics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Calculus	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Basic physics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Quantum mechanics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Essay Responses

### Course Descriptions

Discuss some of your favorite courses, some classroom/lab experience that you enjoyed, and challenges that you faced.

### Degree Plans

Briefly discuss what attracted you to your major and your career plans. Are you planning on attending graduate school? Going into industry, R&D, etc.?

### Project Experience

Describe in detail a project or projects that you've worked on. Did you meet the project design goals? What were some of the challenges you faced and how did you overcome them?

Use this space to tell us more about you. It can be about your hobbies, your interests, issues that you feel strongly about, an experience you had, something you find challenging, etc. You may discuss anything you like.

## Letters Of Recommendation

☐

I will contact **two** individuals and asked them to each submit a letter of recommendation on my behalf. The SIST committee recommends that the letters of recommendation come from faculty at your College or University. Instructions for submitting letters of recommendations will be e-mailed to you with your confirmation email.

I understand that my application will not be considered complete until **both letters** have been received at Fermilab.

## Transcripts

☐

I will arrange to have an **official transcript** sent from my College or University to Fermilab/SIST at the following address:

Fermilab/SIST  
MS117  
P.O. Box 500  
Batavia, IL 60510-0500

I understand that my application will not be considered complete until the official transcript has been received at Fermilab.

Take a moment to read over this application and make any final corrections or additions. When you're satisfied save the PDF file on your computer and then click the button below:

Submit Application

A confirmation e-mail will be sent back to you shortly thereafter. In this confirmation e-mail there will be instructions for checking the status of your application on the SIST website.

**Remember, it is YOUR RESPONSIBILITY to get an official copy of your transcript and two letters of recommendation to Fermilab/SIST by the application deadline of**

**Friday 18 February 2011**